North Fork & South Fork Roanoke River Implementation Plan (Part II)
First Governmental Working Group Meeting Notes
7/29/15
Town of Christiansburg Administration Building
100 East Main Street, Christiansburg, VA

Attendees:

Kafi Howard (Town of Blacksburg)
Ashley Hall (EEE Consulting for VDOT)
Joe Williams (VA Dept. Game & Inland Fisheries)
Leigh Anne Weitzenfeld (City of Roanoke)
Nick Tatalovich (Louis Berger)
John Burke (Town of Christiansburg)
James Moneymaker (DEQ)
Katie Shoemaker (EEE Consulting for VDOT)
Charlie Lunsford (DEQ)
Doug Burton (Montgomery County)
Chris Barbour (Skyline SWCD)
Erin Hagan (Louis Berger)
Mary Dail (DEQ)

Attendees briefly introduced themselves. Mary Dail of the Virginia Department of Environmental Quality (DEQ) began the meeting with a brief description of the watershed area and discussed some of the Clean-Up Plan components (powerpoint presentation). DEQ is very appreciative of its partners assisting in this TMDL process.

The Governmental Working Group is tasked with the following: selecting possible best management practices for water quality improvement, identifying funding sources and technical resources presently available, evaluating additional programs/technical resources that could enhance implementation, identifying lead agencies for business and residential implementation support considering regulatory controls that could induce actions to improve water quality and discussion of local government ordinances or policies that may improve water quality.

Nick Tatalovich with The Louis Berger Group (LBG) discussed some of the Best Management Practices (BMPs) that will be necessary to reduce sources of bacteria including residential BMPs, urban BMPs and agricultural BMPs. It is important to keep in mind that all BMPs have varying pollution reduction values. DEQ is requesting all levels of BMP information from localities to aid in this process. The request covers all existing BMPs regardless of age. BMPs will be fully "credited" in terms of their effect on pollutant load reduction, if confirmed they were constructed post-2003 (which is when the modeling period ended). BMPs installed for new construction also need to be identified so there can be interpretation on crediting are not crediting reduction. Discussion with VADEQ, Louis Berger and stakeholders will determine the method which crediting will occur farther down the line of the TMDL IP development. Louis Berger is providing access to its ftp website for localities to upload available GIS data. Louis Berger will begin the modeling process once data collection is complete. Mary Dail explained the next steps in the implementation process and how DEQ and its partners will work to identify recommended BMPs.

Working Group Discussion:
Italicized questions were asked of the group at large.

Are there other individuals or organizations we need to include in this process?

- Roanoke County [unable to attend]

- New River Valley Planning District Commission
- Virginia Tech - Chuck Dietz

Information Request for Localities:

DEQ would appreciate localities sending the following information as is available:

- Stormwater BMP (GIS Layers)
    - Type of BMP (Detention (Dry) Basin, Retention (Wet) Basin, Bioretention, Infiltration Trench, Manufactured Units, Constructed Wetlands, Rain Gardens, Permeable Pavement, Riparian Buffers, Urban Landuse Conversion)
    - Location of BMP
    - Drainage Area of BMP
    - Age of System
- Sewage Disposal Practices (GIS Layers)
    - Sewer Lines
    - Housing/Building Layers (with age of houses)
- Street Sweeping Practices
    - Extent and Frequency of Sweeping
    - Amount of Debris swept
- Pet Waste Program Information
    - Pet Waste Station Locations (Existing and Proposed)
    - Any ongoing educational or outreach efforts
- Streambank stabilization projects
    - During development of the Part I Roanoke River Implementation Plan, 25.5 lbs/ft/year average sediment reduction was applied to streambank stabilization BMPs. Localities are asked if this is a reasonable sediment reduction efficiency and/or if they have data supporting another factor (a spreadsheet would be appreciated in this case).
- Stream Restoration Projects
    - Location, Length and Cost of Project
    - Average Sediment Reduction per foot (310 lbs/ft/yr) was utilized in previous IPs (and Part I Roanoke River IP); if available, please provide calculation spreadsheet if another sediment reduction efficiency is used.
- Grant Funding Opportunities
- Ongoing or Future Watershed Plans
- MS4 Annual Report

Localities were asked to use LBG's ftp site to upload above requested information by 9/18/15:
http://ftp.louisberger.com/
Username: NFSF-Roanoke
Password: Roanoke!

Sewage Handling and Disposal Discussion Tables:

- A participant asked if the towns are included in the following table: "percentage of houses within each county on public sewer, septic system, and other means". Yes, the portions of the towns located within the boundaries of the impaired watersheds are included in the percentages provided in the table.

- New construction has public sewage available. Blacksburg and VT share a sewer system and Christiansburg has its own sewer system. Montgomery County has a Public Service Authority which maintains joint water and sewer lines. The Authority includes Shawsville.

- Montgomery County has some available GIS data.

- DEQ/LBG are trying to get a realistic number of the houses on conventional septic.

- *Are there any BMPs targeting undersized sanitary sewer or overflows (SSO's)?*

    - The Roanoke City representative stated that the City does not always know when a problem occurs. How can the locality get overflow information? Incidents are required to be reported to DEQ. Sanitary sewer issues are being handled within the permit program at DEQ. Illicit discharges are more difficult to determine versus a sanitary sewer overflow.
    - A stakeholder commented that in general, Inflow &Infiltration (I&I) events are typically underreported. Researchers from Virginia Tech have studied I&I in Blacksburg.
    - The comment was made that Floyd County has no public sewer within the IP area.
    - The Town of Blacksburg representative states that there is little the town can do because the watershed area of interest within town limits is all or almost all on sanitary sewer. They noted there are educational gaps in the need to report sewage smells to the town.
    - Localities mentioned they are short on resources for inspections

- The number of residences served by public sewer are derived from census data. The group stated that the Floyd County numbers for the IP area are incorrect in that there are only septic tanks and potential straight pipes in that portion of the county.

- Stakeholders reported the Blacksburg Country Club, served by Aqua Virginia, empties into the North Fork and has "very weak treatment". DEQ confirmed that historically this facility had permit compliance challenges. Recent DMRs show that the facility is meeting applicable limits. DEQ can further follow up with Compliance staff regarding this facility.

- *Is there a need for public sanitary sewer education?*

    - Stakeholders mentioned that disposable wipes are bad for sanitary sewer systems as they can cause SSO's. More education is needed to increase awareness and change habits.
    - In addition, education of citizens on sewer and pet waste problems is needed. A suggestion was made to include information in mailers; however, it is important to note that there is a discrepancy between people receiving water and sewer bills.

- *Roanoke County requires that houses within a certain distance to the sewer system connect (300 feet). Do other localities enforce a similar ordinance?*
    - The Town of Blacksburg requires connection to the sewer system if the structure is within 200 feet of the sewer line.

- *Is there a need/interest/capacity to add additional sewer? Is that something we should consider as BMPs are recommended?*

    - Montgomery County mentioned that it has a sewage treatment plant at capacity.
    - DEQ/LBG responded that IPs generally do not address costs associated with new sewer construction in local communities because this action is much broader that connecting existing residences with failing septic systems to an existing public sewer footprint. If there were plans to build a small community treatment system to address a number of residences with failing septic systems then this type of action would be appropriate in an IP.

Agricultural Programs and Implementation Locally

- *Interest in conservation programs within the Roanoke River watershed is low. What are the reasons why interest is low?*
    - The Conservation Reserve Enhancement Program (CREP) is intended to improve water quality, but it does not account for rotational grazing fencing. Farms need a grazing system.
    - *Does CREP include an alternative water system?*
        - SWCD personnel responded that it does however there are limits/restrictions
    - VDGIF Landowner Incentive Program: Mr. Williams indicates that landowners fear losing control of their land to the government. Fence maintenance is an issue especially due to funding needs. There is no more money available for Landowner Incentive Program projects.
    - A comment was made that buffers are not very efficient in mountainous areas and that top-of-bank fencing BMPs and interior fencing BMPs are needed.
        - Charlie Lunsford (DEQ) agrees that we need more flexibility with regional options.
        - A comment was made that sometimes it takes land changing hands for BMPs to be implemented.
        - Charlie asked which watershed of the four could be targeted with limited funding? Chris Barbour is unsure which areas could be targeted at this time.
            - Doug Burton states that there is more livestock in the Riner area.
            - The group agreed that it will be tough to implement agricultural BMPs in Bradshaw Creek. Chris mentioned that there are not many animals in the South Fork that haven't already been excluded although there could be a small amount in Wilson Creek.
    - Land use has changed significantly over the years.
    - The comment was made that loads are modeled from each acre of pasture. The question was asked if the IP takes into account land use changes. LBG has utilized the Agricultural Statistics Service data; however, it is noted that not every farmer completes those surveys.
    - The question was posed about whether nutrient management for urban areas is being considered? The answer is that no, a bacteria reduction is not associated with this BMP. BMPs have different efficiencies by specific pollutant.

Stormwater Programs (Urban Runoff)

- A stakeholder commented that many of the stormwater BMPs in the North Fork will be VDOT BMPs. Another stakeholder responded that VDOT only installs a BMP to offset development projects in other areas.

- Doug Burton states that Montgomery County only has BMPs resulting from new development and not retrofits.

- A stakeholder asked from what year is the Land Use data derived.
    - LBG responded that land use data is from 2006 as was used in Part 1. A locality representative inquired about whether or not the localities should give percent imperviousness? Nick will follow up with the LBG modeler. Land use is a big driver regarding pollutant loading.

- *Are there streambank restoration opportunities?*
    - The group conveyed that there are a lot of opportunities for streambank restoration especially in the North Fork. Permitting can be an issue for some of these projects. Efficiency may not be specific to streambank restoration versus streambank stabilization. It was suggested that there would likely be a need for specific targeted grants to fund stabilization/restoration measures.

Pet Waste

Do we need to account for pet waste BMPs? Is it more education? How is an education program quantified?

The group responded:

- There are not many concentrated areas for pets (e.g. dog parks).
- It was mentioned that there a pet waste issues in Blacksburg.
- Virginia Tech has data on pet waste bags used on the Huckleberry Trail.

Mary thanked everyone for their time and the meeting adjourned at 4:05 p.m. A Government Working Group representative to the Steering Committee is sought. The next meeting will likely be in November.

[Meeting Handout]

Roanoke River Watershed Clean-up (TMDL Implementation) Plan
Part II: North Fork and South Fork Roanoke Rivers

GOVERNMENT WORKING GROUP

July 29, 2015 2:00 p.m., Town of Christiansburg Offices

AGENDA

1. Welcome and Introductions
2. Background on Clean-up Plan Development
3. Information Request
4. Discussion
    a. Sewage Handling and Disposal
    b. Agriculture Programs and Local Implementation
    c. Stormwater Programs
    d. Pet Waste
    e. Other Bacteria Sources
    f. Integration with Other Activities and Local Planning
    g. Regulatory Controls

Information Request for Localities:

We are looking for as much information pertaining to the following management practices as is available. While we are seeking detailed information, any form or level of information would be appreciated.

- Stormwater Best Management Practices (GIS Layers)
  - Type
  - Drainage Area
  - Date of Install
- Sewage Disposal Practices (GIS Layers)
  1. Sanitary Sewer Coverage layer
  2. Housing layers with age of houses
- Street Sweeping Practices
  - Extent of Sweeping (miles)
  - Frequency of Sweeping
  - Amount Debris Swept
- Pet Waste
  1. Existing Pet Waste Education Program Information
  2. Existing/Proposed Pet Waste Station Locations (GIS if available)
- Stream Restoration Projects (Completed/Ongoing/Planned)
- Storm Drain Clearing Efforts
- Funding Opportunities for Grants
- Ongoing or Future Watershed Plans
- MS4 Annual Report

Land Use Changes since the original TMDLs were developed:

Part II Landuse Distribution and Comparison							
Landuse	Developed	Cropland	Pasture/Hay	Forest	Water/ Wetlands	Other	Total
NLCD 1992 Acres	2,274	3,678	23,150	131,975	225	743*	162,046
NLCD 2006 Acres	13,878	1,216	20,179	126,504	140	130**	162,046
Percent Change	**510.2%**	**-67.0%**	**-12.8%**	**-4.1%**	**-37.8%**	**-82.4%**	

Sewage Handling and Disposal Discussion Tables

Straight pipe estimates from TMDL:

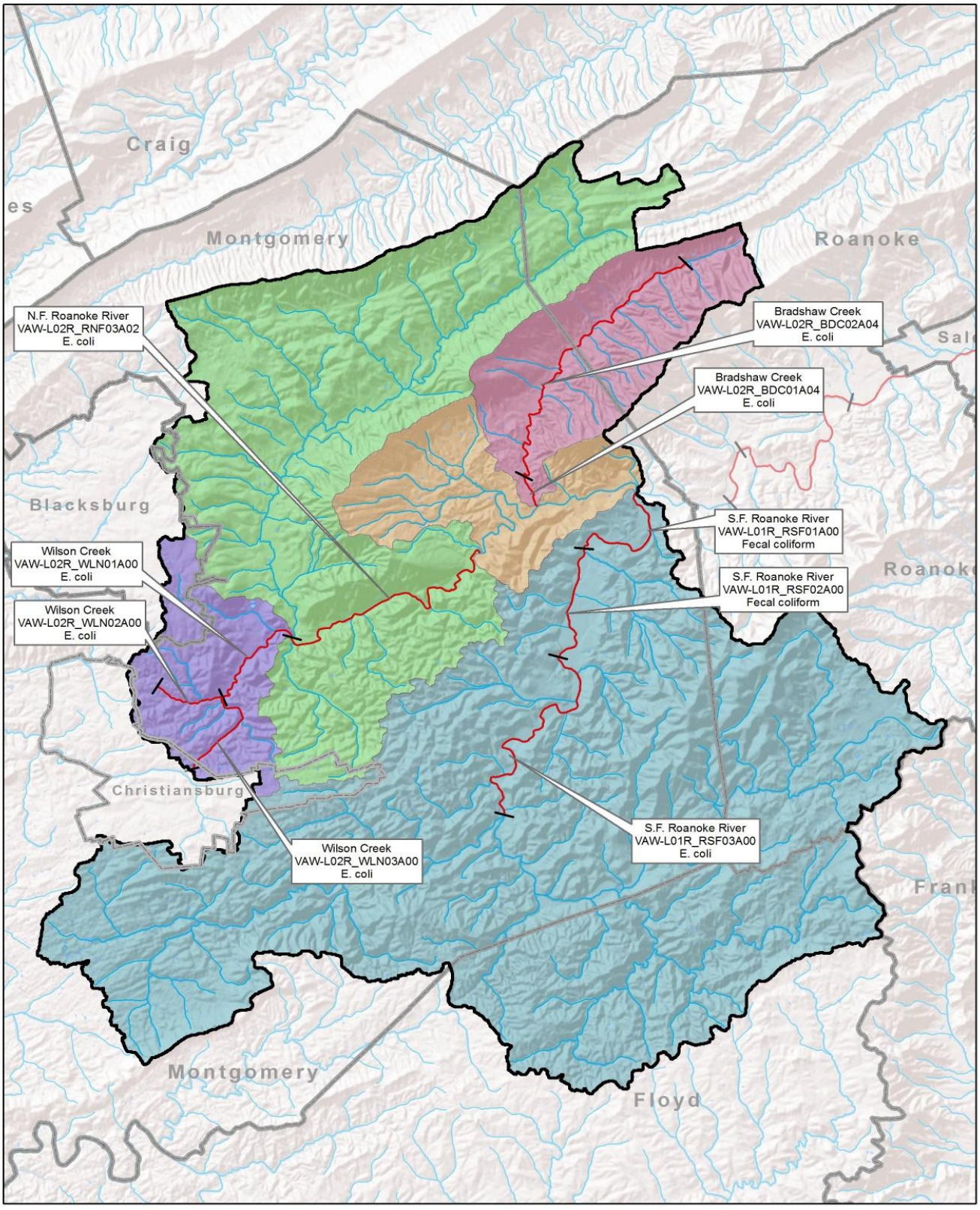
Table 3-16: Estimates of the Number of Septic Systems and Straight Pipes in the Wilson Creek, Roanoke River, and Ore Branch Watershed

Category	Total # of People on Septics	# People per Household	# Failing Septics or Pipes	People Served	Flow (gal/day)	Daily Load (#/day)
Septic Systems	51,504	2.49	620	1,545.1	115,884	4.39E+10
Straight Pipes	162	2.58	63	162.5	12184	4.61E+14

Percent of Houses within each County on public sewer, septic system, and other means:

County	% Public Sewer	% Septic Tank	% Other Means
Floyd County	7.45%	83.96%	8.59%
Montgomery County	65.50%	32.73%	1.78%
Roanoke County	66.46%	32.95%	0.60%
Roanoke City	95.96%	4.00%	0.04%
Salem City	93.10%	6.86%	0.04%
Bedford County	6.75%	90.17%	3.09%
Franklin County	15.04%	81.40%	3.55%

Shaded rows are not applicable to Part II IP but are included in original TMDL



Map of the Roanoke River Watershed Clean-up Plan Part II Area.